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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/567,827	01/03/2007	Hasso Haibach	8459.015.US0000	2108
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Novak Druce + Quigg, LLP 1300 Eye Street, NW, Suite 1000 Suite 1000, West Tower Washington, DC 20005			EXAMINER LAVILLA, MICHAEL E	
			ART UNIT 1794	PAPER NUMBER
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/567,827	Applicant(s) HAIBACH ET AL.	
	Examiner MICHAEL LAVILLA	Art Unit 1794	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 November 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-28 is/are pending in the application.
- 4a) Of the above claim(s) 11-16 and 20-28 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10 and 17-19 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>20060210</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

1. Applicant's election with traverse of Group I, Claims 1-10 and 17-19, in the reply filed on 23 November 2009 is acknowledged. The traversal is on the ground(s) that search of both claim groups can be made without a serious burden. This is not found persuasive because the claim groups are separately classified, which is prima facie evidence that the appropriate search required for each claim group is non-coextensive and so the search and examination of both claim groups would constitute a serious burden.
2. The requirement is still deemed proper and is therefore made FINAL.
3. Claims 11-16 and 20-28 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected invention, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in the reply filed on 23 November 2009.

Claim Objections

4. Claims 8 and 19 are objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. Regarding Claims 8 and 19, these claims specify that the plate must have a thickness in a claimed range that has a lower endpoint of 0.1 mm, whereas previous Claim 1 specifies that the lower endpoint thickness of the core is 0.10

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mm. However, the minimum thickness of the plate must be greater than that of the minimum thickness of the core, and so it would appear that the claimed thickness lower endpoint for the plate in Claims 8 and 19 may improperly expand, i.e., not be further limiting of, the scope of subject matter encompassed by Claim 1.

Claim Rejections - 35 USC § 112

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:
6. The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
7. Claims 2, 3, and 17 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
8. Regarding Claims 2, 3, and 17, it is unclear what is the antecedent basis of the phrase "the nickel layer". Is this a reference to the applied by depositing nickel top layer, or to the nickel clad top layer, to either, or both?

Claim Rejections - 35 USC § 102

9. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:
10. A person shall be entitled to a patent unless –
11. (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
12. Claims 1, 2, 4, 8-10, and 19 are rejected under 35 U.S.C. 102(b) as being anticipated by Oltman USPN 6,245,452. Oltman teaches a plate suitable for

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producing housings (cathode can) or lids (anode can) for button cell batteries, comprising a core layer of steel, a copper or nickel clad top layer at one side of the core layer and a nickel top layer at the other side of the core layer, characterized in that the nickel top layer has been applied by cladding or plating the nickel and in that the core layer of steel has a thickness of 0.11 mm. See Oltman (col. 4, line 43 through col. 5, line 16; Figures 6 and 7; Claims 1 and 4; and col. 11, lines 19-65).

13. Claims 1, 2, 8, 9, and 19 are rejected under 35 U.S.C. 102(b) as being anticipated by Adey et al. USPA 2001/0001369. Adey teaches a electrochemical cell cathode can (housing) structure that is formed by working a steel strip comprising a core layer of steel having a nickel layer on each side of the core, characterized in that nickel layers have been applied by plating the nickel and in that the core layer of steel has a thickness of approximately 0.15 mm. See Adey et al. (Figure 3; and paragraphs 77 and 99-101).

Claim Rejections - 35 USC § 102/103

14. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

- (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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15. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148

USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

16. Claims 3 and 17 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Oltman USPN 6,245,452.

Oltman teaches a plate suitable for producing housings or lids for button cell batteries, comprising a core layer of steel, a copper or nickel clad top layer at one side of the core layer and a nickel top layer at the other side of the core layer, characterized in that the nickel top layer has been applied by cladding or plating the nickel and in that the core layer of steel has a thickness of 0.11 mm. See Oltman (col. 4, line 43 through col. 5, line 16; Figures 6 and 7; Claims 1 and 4; and col. 11, lines 19-65). Regarding Claim 3, Oltman may not teach applying the nickel layer by PVD or CVD, but rather by plating. Regarding Claim 17, Oltman may not teach the claimed electrolytic strip plating. It would be expected that the plating formed articles of Oltman are the same or substantially the same as those formed by PVD, CVD, and/or electrolytic strip plating since all articles would obtain a nickel layer bonded to the steel core and since applicant has not demonstrated that layers formed by the claimed product-by-process limitations

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necessarily result in compositional or structural features absent in those formed by plating in Oltman.

.Claim Rejections - 35 USC § 103

17. Claims 7 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Oltman USPN 6,245,452 in view of Adey USPA 2001/0001369. Oltman is relied upon as above as set forth in the section 102 rejection over Oltman. Oltman may not teach that the steel core is mild steel of deep drawing quality. Adey teaches a cathode can formed with steel cores wherein the core can be cold-rolled mild steel. See Adey (paragraphs 106-108). It would have been obvious to one of ordinary skill in the art at the time of the invention to utilize these steel materials of Adey as the battery-grade cold-rolled steel of Oltman since they are identified by Adey as cold-rolled steels suitable for making cathode can of a battery and have suitable drawing characteristics. Regarding Claim 18, since the steels apparently can be used to form housings as required, they can be said to possess the deep drawing quality required by the claim.

18. Claims 5 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Adey et al. USPA 2001/0001369. Adey is relied upon as above in the section 102 rejection over Adey. Adey suggests that the Ni/steel/Ni structure for the can may obtain a single additional nickel plating layer. See Adey (paragraph 77) (suggesting one or two additional layers). As well, Adey suggests that the nickel layers 62 and 64 may be independently set in the thickness range of 0.00165 to 0.00215 mm prior to annealing and temper rolling to the desired strip thickness,

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which in the indicated example is 0.15 mm. See Adey (paragraph 99). Together, these teachings imply that the steel sheet (strip) used to form the can would have been formed from a strip having a core of the claimed thickness with additional nickel layer on one side of either layer 62 or layer 64 wherein the nickel layers 62 and 64 used to make the strip have thicknesses independently in the range of 0.00165 to 0.00215 mm. It would have been obvious to one of ordinary skill in the art at the time of the invention to apply a single nickel layer on layer 62 or layer 64 since Adey et al. suggests that cans formed in this manner are effective. It would have been obvious to one of ordinary skill in the art at the time of the invention to independently select the nickel layer thickness of what become layers 62 and 64 anywhere in the range of 0.00165 to 0.00215 mm as suggested by Adey since Adey suggests that such thicknesses are effective for these layers. That subset of these rendered obvious strips, in which the nickel layer thickness under the singly additionally applied nickel is thinner than the nickel layer thickness of the nickel layer which is not additionally coated, meet the claim requirement relationship.

Conclusion

19. Any inquiry concerning this communication or earlier communications from the examiner should be directed to MICHAEL LAVILLA whose telephone number is (571)272-1539. The examiner can normally be reached on Monday through Friday.

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20. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jennifer McNeil, can be reached on (571) 272-1540. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

21. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

**/Michael La Villa/
Michael La Villa
Primary Patent Examiner, Art Unit 1794
3 December 2009**